









Pedagogical methods of digital working and learning









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1.Introduction

Making volunteers fit for an increasingly digital world is a central challenge for volunteer coordinators. The future of working and learning is digital.

1.1 What is digital working?

More and more people spend their working hours in front of a computer screen. Digital working, as this form of work is commonly called, means another fundamental change for employees and employers.

Digital working is a decentralised working method that is not only found among freelancers, but increasingly in office jobs.

Digital working can be summarised using the following key points:

- flexible working (independent of time and place)
- enabled by a laptop (or other mobile device) and an internet connection
- decentralised distribution of tasks
- no presence times in an office¹

The use of tools is indispensable in digital work. Important is also the didactically motivated use of digital technologies. To increase the quality and efficiency of digital work the development of media-didactic teaching/learning settings and testing of innovative teaching/learning technologies is required.

Concepts for the use of digital media are still used far too rarely. It is important to combine content, digital media and teaching methods appropriately. The best computers and the fastest WLAN are of little use if there is no supported, pedagogically well-founded concept.

1.2 What is digital learning?

In recent years, learning has evolved dramatically through digitalisation. Learning is no longer tied to specific materials such as books, it is no longer tied to a place and it is also independent of a specific time.

Digital learning is also called e-learning. If the digital media required for the learning process are only available online (only with an internet connection), this is also referred to as online learning.

¹ Cf. Fichtel J., 2021 URL: <u>https://arbeits-abc.de/digitales-arbeiten/, accessed on 01.09.22</u>









In order for the transfer of knowledge to function easily and flexibly, printed content is replaced by digital media in digital learning. Instead of a book, I then have an e-book or an online document.







2. Digital learning methods

The following pedagogical methods were selected from a variety and described in more detail:

2.1 Blended Learning (Flipped Learning)

Blended learning is a combination of online and face-to-face learning. Face-to-face learning describes all forms of learning that take place face-to-face between learners and teachers or trainers. Classical characteristics of face-to-face learning are that it usually takes place in a group. Online learning includes all forms of learning with electronic or digital media.

Flipped learning is a method of blended learning.







Method: Flipped Learning

Description of the method

Flipped learning is a method of the very common teaching and learning form of blended learning.

Flipped Learning or Flipped Classroom refers to a teaching method developed by Bergmann & Sams in the USA in 2007. It is a kind of a converted classroom.

The core idea was to simply reverse the classic teaching method. This means that the learning content is worked out by the learners at home and the application takes place in the classroom or course.

Procedure

In flipped learning, the input phase is interchanged with the practice phase, i.e. the knowledge transfer takes place in self-study (mostly through learning videos, screen...) at home and the in-depth activities (practical applications, interactive methods, discussions, group work) take place in the classroom or course.

Advantages	Disadvantages
Enables learning at one's own pace, self- organised, and individual. They learn at their own pace, can repeat what they are learning several times and thus have power over their learning process. This also promotes self- efficacy as well as the ability to organise themselves.	Digital competences are a prerequisite; in case of problems, e.g. with the technology, you must be able to solve them yourself (with external support).
Independence of time and place.	It takes the ability to self- reflect on one's own knowledge and what one has not understood. It also requires openness to be able to discuss this in the group.
Intensive entry into the subject matter is possible	It requires a high level of self-organisation and discipline.
Higher attention of the learners	You have to know how to learn well - what type of learner you are, what conditions are good and promote learning.
The learning material can be called up at any time, e.g. for missing learner	High competence of trainers to engage as learning process facilitators and also high digital competences

Tips and conclusion

- 1. Just start doing it!
- 2. Be well prepared
- 3. Invest in developing digital competence of students if needed
- 4. Use different methods and media resources
- 5. Don't pressure yourself to create perfect videos







2.2 Web Based Training

Method: Web-based Learning

Description of the method

Web-based training (WBT) is a form of computer-based learning that relies on an internet connection to share content and support communication. In its origins, this type of practice relates to distance learning as it mostly does not require face-to-face interaction between the learner or trainee and the instructor.

Informal WBL – students learn in self-paced online courses; no tutor is required. Formal WBL – students enrol in a structured course where materials, feedback and progress testing are provided. Formal learning can take place online entirely or partly. Requires a tutor / course admin.

Advantages	Disadvantages
accessible	requires stable internet connection
self-paced	weaker progress monitoring
attractive	can be distracting
motivating	high drop-out rates
diverse	overwhelming

Tips and conclusion

For informal web-based learning, high self-control and stable motivation levels are required. Self-paced students might benefit from productivity and distraction silencing apps. Various forms of learning such as interactive videos, podcasts etc. might help to maintain focus.

In formal web-based learning, students benefit from attractive materials as well as good routine. It is a good practice to have a clear syllabus and schedule available as well as the materials or useful links. Regular progress checks are essential for good feedback and information retention.

Further reading:

Eight Tips for Successful Online Learning

<u>A Practical Guide To Developing Effective Web-</u> based Learning









2.3 Video training

Method: Video-Based Learning - VBL

Description of the method

Video-Based Learning is a method of teaching and learning through video that has been recognised as a powerful resource in online teaching activities.

It uses a combination of pictures, animation, graphics, text and audio that creates a multisensory experience by explaining to learners what they need to learn.

Advantages	Disadvantages
widely accessible – all you need is an internet connection.	lack of human interaction
better learning retention	device dependency
interactive, engaging and fun	

Tips and conclusion

Video-Based Learning is a method that can partly replace traditional ways of teaching and learning. It can attract learners' attention and help to increase their collaboration. It can be a useful method to support a variety of learning styles, especially to people who identify as visual learners.

Procedure

To access Video-Based Learning you have to join video training platforms on your desktop or mobile device. The learning can happen from any location, at any time and you can learn at your own pace.









2.4 Webinar

Method: Webinar/Online Seminar/Courses

Description of the method

Webinars, the short term for Webbased Seminars, are live online events transmitted via a video platform with the purpose of training.

Webinars allow to have interaction with the participants through giving, receiving and discussing information.

A MOOC is suitable for a large number of participants. A Massive Open Online Course is an Internetbased course that is open and used in higher education and adult education.

To take part in a webinar, participants must register. They would then receive a confirmation email from the organisers containing further instructions and the login details and/or access link. Participants connect to the platform on an app or thorough the web browser and follow the live event. Participants also need a microphone and webcam for interaction.

	1
Advantages	Disadvantages
widely accessible – all you need is a good internet connection.	mobile devices may not be always supported
participants can be based anywhere	in case of technical pro- blems, solutions must be sought independently. Technical support is often not provided.
cost-effective	attention is often reduced: other things are done on the side, one is distracted.
large number of participants can attend– based on technical conditions limitations	there is too little exchange; dialogue is the most that is encouraged, but no discussions.
well suited for information transfer	it needs a professional webinar design - and appearance. The video does not forgive mistakes.
streamed webinars can also be listened to.	

Tips and conclusion

Webinars are very similar to face-to-face seminars. They can be a very useful method when it comes to distance learning courses.

Webinars can gather a diverse range of participants from all over the world.

TIPS

- good technical equipment
- max. 20 minutes
- well prepared seminar design
- technical support in the background
- diverse presentation methods not only ppt









2.5 E-Moderating

Method: E-Moderating

Description of the method

E-moderating is a process of engaging learners in an online discussion, initially facilitating the discussion and then taking a step back to allow participants to drive the ongoing discussion and construct new knowledge. An important element of e-moderating is the role of the e-moderator. It is an important role as it can impact the quality of learning achieved by participants and is pivotal for effective online discussions.

(source:

https://www.westernsydney.edu.au / data/assets/pdf file/0003/45018 3/emoderating.pdf)

Procedure

1: Access and motivation participants require individual access and the skills to use the communication tools.

2: Online socialisation

3: Information exchange participants give information relevant to the course to each other.

4: Knowledge construction - course related group discussion takes place.

5: Development - participants look for benefits from the system that will help them achieve their goals.

Advantages	Disadvantages
less time spent (no travelling necessary)	no/less socialising
reduced travel costs	dependant on technical infrastructure: video and audio necessary
(inter)active participation and exchange across country borders possible	moderator needs to master tools (good offline moderator isn't necessarily a good online moderator)
more flexibility in scheduling a session	active participation necessary to achieve results

Tips and conclusion

The e-moderator has a crucial role in regards to the success of an online learning session as there is no direct eye contact and thus less non-verbal communication possible. The e-moderator promotes interaction and communication among the group which can be comprised of experts and laymen. The e-moderator itself doesn't need to be an expert in the subject area but needs to be well-versed in the different techniques that are necessary to guide and steer an online discussion.

Online learning sessions can be arranged more easily as no travelling back and forth is required which also reduces costs. On the other hand, all participants need to be trained in the usage of devices and conference tools before taking part.













2.6 Podcasts

Method: Podcast

Description of the method

A podcast is a digital audio programme, that you can listen to on any device. A podcast series focuses on a particular topic or theme and is usually comprised of several episodes. Podcasts can be any length, any frequency and any format. From daily five-minute podcasts hosted by one presenter to a monthly three-hour show set in an interview format, anything is available.

Advantages	Disadvantages
easy to make and cost- effective	no personal interaction: passive learning
great for auditory learning	dependant on technical infrastructure
flexibility – can be listened to on any device (smartphone, at home, in the car, even offline)	for some apps a subscription is necessary
huge variety of content	some podcasts contain advertisement
entertaining as well as informative	

Tips and conclusion

Podcasts can be used for auditory learning and are great for people to go at their own pace. You can always replay and pause and even adjust the playback speed. No matter the subject, podcasts are usually more entertaining than your usual school lesson and there's an endless availability on topics. Even niche topics are covered and available in different languages. They are a great way of learning languages too.

Before you buy a monthly subscription there is the possibility of a free trial period. You should test out different apps before you settle on one and also use the possibility of free podcasts made available on websites. It is also cheaper to download podcasts when you have Wi-Fi and then listen to them offline.







Procedure

To listen to a podcast, you are interested in you either need to download a Podcast app (e.g. Spotify, Audible, Podimo) on your mobile device or look for free podcasts online. You can either listen to them online or download podcasts for offline use later.



2.7 Mobile Learning

Method: Mobile Learning

Description of the method

Mobile Learning, also referred to as mLearning, is simply the process of accessing learning content through mobile devices. It accentuates mobility and accessibility for the learner, who can decide where and when to access the available information.

Mobile learning solutions may differ, although they usual require some essential features, such as:

- Microlearning units (short • mobile sessions up to two minutes in length)
- Social tools (connecting with • other students, networking, team-based knowledge)
- Gamification ("battles", challenges, rewards)

Advantages	Disadvantages
mobile devices omnipotent	technical ability barriers
efficient	requires expert prep
engaging	can be distracting
motivating	focus can shift from learning to reward
cost-effective	risk of unprofessional development

Tips and conclusion

For mobile learning, a good curriculum as well as informed development is crucial for success. It is very effective to use a familiar and accessible platform to avoid driving students away with initial technical difficulties.

Individual units should be short, engaging and rewarding. It should also be easy for the student to see their progress to stay motivated. Use of various content is recommended as well as 24/7 accessibility.

Further reading:

The future of mobile learning and development

Mobile Learning in 2022











2.8 Microlearning

Method: Microlearning

Description of the method

Microlearning is a form of e-learning characterised by many small learning units. These are called microcontents or learning nuggets. They can be found both in structured form (e-learning) and in dynamic processes, such as a weblog on the World Wide Web.

Various microlearning formats can be completed in a few minutes when needed and learners get the answer to a question that is relevant to them.

These learning units can last 10-15 minutes or more, but a unit can also consist of just a few seconds.

Advantages **Disadvantages** always and everywhere not suitable for all available learning needs individual and flexible not possible to impart broad knowledge learning method is a didactic challenge interesting and motivating to teach a limited topic no social interaction quickly and in a practical way shortened training times save costs!

Tips and conclusion

Good microcontent is...

- simple and accessible from any device.
- tailored to the individual learner.
- precise and gets to the heart of the information.
- part of a larger learning concept.

Tip: If content is more extensive, you can simply split it into several learning units!

Tips for microlearning videos:

- keep it interactive!
- integrate multiple media
- sound does the trick

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Procedure

Microlearning can provide a variety of learning solutions. In organisations, it can be used for introductions, professional development or training.

Microlearning content types include: video tutorials, audio podcasts, presentations, interactions, games, scenarios, assessments, text-based job aids and short online lessons.